

EX PARTE OR LATE FILED

LAW OFFICES
GINSBURG, FELDMAN AND BRESS
CHARTERED

1250 CONNECTICUT AVENUE, N.W.
WASHINGTON, D.C. 20036-2600

TELEPHONE (202) 637-9000

FAX (202) 637-9195

TELEX 4938614 CABLE "LEGIS"

8201 GREENSBORO DRIVE
MCLEAN, VA 22102
TELEPHONE (703) 821-3610
FAX (703) 821-7990

DOCKET FILE COPY ORIGINAL
CORRESPONDENT OFFICE
9, RUE BOISSY D'ANGLAS
75008 PARIS, FRANCE

HENRY M. RIVERA
(202) 637-9012
hrivera@gfbllaw.com

November 14, 1997

Magalie Roman Salas, Esq.
Secretary
Federal Communications Commission
1919 M Street, NW
Room 222
Washington, DC 20554

RECEIVED

NOV 14 1997

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: Ex Parte Meeting in CC Docket No. 94-102

Dear Ms. Salas:

On November 13, 1997, Jim Conran and Carl Hilliard of the Ad Hoc Alliance for Public Access to 911 ("Alliance"), Jonathan Linkous of Issue Dynamics, Inc., which represents the Alliance, and I met with Commissioner Susan Ness and David Siddall, of the Commissioner's staff, to discuss the Alliance's position on issues in the above-referenced proceeding. The Alliance's position, as stated in this meeting, has been articulated previously in the Alliance's comments, reply comments and other filings that are part of the record in the above-referenced docket. In summary, the Alliance's position is that: (i) the Commission should remove its self-imposed stay of its Second Report and Order in this Docket and permit all cellular telephone customers to have the ability to access 911 emergency services; and, (ii) the Commission should require cellular telephones to connect to the strongest cellular signal, for purposes of making 911 calls, regardless of whether the subscriber is a subscriber of that particular signal. A copy of the materials, including a videotape, that were distributed at the meeting are attached.

Sincerely,



Henry M. Rivera

cc: Cmmstr. Susan Ness (w/o videotape)¹
David Siddall, Esq.

¹ We have previously delivered the videotape to Commissioner Ness' office. Therefore, we are not providing Commissioner Ness with a copy of the videotape with this letter.

Ad Hoc Alliance for Public Access to 911

Alliance for Technology Access•Arizona Consumers League•National Consumers League•World Institute on Disability•National Emergency Number Association-California Chapter•Crime Victims United•Justice for Murder Victims•California Cellular Phone Owners Association•Florida Consumer Fraud Watch•Center for Public Interest Law•Consumer Action•Consumer Coalition of California•Consumers First•California Alliance for Consumer Protection•Californians Against Regulatory Excess•The Office of Communication of the United Church of Christ•Utility Consumer Action Network•Children's Advocacy Institute

November 13, 1997

The Honorable William Kennard
Chairman
Federal Communications Commission
1919 M Street, NW
Room 814
Washington, DC 20554

Re: CC Docket 94-102

Dear Chairman Kennard:

Last night, PrimeTime Live told the story of Marcia Speilholtz's desperate efforts to reach 9-1-1 on her cell phone. Her car was chased for approximately eight minutes until she was boxed in and shot in the face by her pursuers. The Ad Hoc Alliance for Public Access to 911 (Alliance) did a frequency strength survey over the route Marcia followed that fateful evening. A copy of that study was filed with the Commission over one year ago. The study shows a marginal signal from Marcia's cell carrier and a strong signal from the competing cell carrier. Unfortunately, Marcia's cell phone was programmed to select only her carrier, which is the usual situation in most cities.

Over two years ago the Alliance proposed a simple rule change which would cause a cell phone to select the strongest available compatible signal when 9-1-1 is dialed. Had Marcia's cell phone been equipped with this simple life saving feature, her call to 9-1-1 would have gone through. We understand that there was a police helicopter within two minutes of Marcia at the time of the incident. This helicopter was equipped with a powerful searchlight which could have illuminated the area and acted as a deterrent. Furthermore, the helicopter pilot could have given Marcia driving instructions to prevent her from turning the wrong way. We also understand that there was a police cruiser within two minutes of Marcia. In sum, had she been able to contact 9-1-1, it is reasonable to assume that she would not have been shot.

We performed other frequency strength studies in other cities which demonstrated that the actual coverage area from the perspective of a portable cell phone looks like a piece of Swiss cheese. Our studies also show that when you overlay the coverage areas for the two cell carriers, most of these holes are filled in. Thus, selection of the strongest available compatible signal gives the portable cell phone caller the best available channel of communication to 9-1-1. These studies have been filed with the Commission.

During the two years the Alliance's petition has been pending before the Commission, approximately twenty-two million cell phones have been manufactured and programmed in the same way as Marcia's phone. Sixteen months ago, the Commission issued a Further Notice of Proposed Rulemaking seeking comment concerning the Alliance's strongest signal proposal. Commentators were specifically told to file engineering studies in support of any objections to this proposal. No engineering studies were filed. Instead the opposition engaged in the same rhetoric without providing any foundation for their statements. However, the Alliance commissioned an engineering study by the Trott Communications Group which was filed with the Commission during the comment period. This study concluded :

"In summary, the proposal by the Alliance to 'Seek the Strongest Compatible Signal' when placing a call to 9-1-1 is achievable with very little impact on the equipment manufacturer, while providing the benefit of the best possible reliability to the user and providing the closest cell site information to the PSAP. This proposed change will also benefit the PSAP by minimizing the probability of dropped or uncompleted calls requiring call-back by either the PSAP or the user."

Despite the Commission's mandate some sixteen months ago that the interested parties meet and discuss various issues in the E-911 proceeding, the Alliance was excluded while the Cellular Industry met with the Public Safety community in an effort to persuade them to support the proposition rejected by the Commission that, in order to reach 9-1-1 at all, the caller must be a paid-up subscriber or roamer authorized to use the particular cell system which handles the call. This position was soundly rejected by the Commission as contrary to the public interest. Nevertheless, the Cellular Industry has persisted in its efforts to overturn this decision. The latest proposal from the industry simply puts a new label, i.e. "successfully validated calls" on what was originally called "service initialized".

The Alliance proposed an amendment to Part 22 sub part k, Paragraph 22.933, which incorporates OET 53 cellular system mobile station-land station compatibility specifications, to define how mobile telephones operate. Paragraph 2.6.3.2 defines how a mobile unit will scan its preferred system channels during call origination. The Alliance proposed the following addition to the beginning of this paragraph:

"If the purpose of this 'origination' is to complete a call to 9-1-1 (an emergency call), the mobile station must examine the signal strength of all of the control channels assigned to System A and System B and select a compatible channel with the strongest signal. In all other cases,..."

The Cellular Industry's current objections to this proposal are centered around the characteristics of newly deployed PCS technologies that do not operate in the same manner as the cell systems which currently serve some fifty four million subscribers. The Alliance has taken the position in its filings before the Commission that the industry had full knowledge of this proceeding and should have included provisions to enable the cell phone to select the strongest signal. Nevertheless the technical issues surrounding PCS systems are being used as a basis for delay, which we submit is contrary to the public interest. Each day some thirty five thousand cell phones are being manufactured for use on non-PCS systems without the simple, low cost life and property saving feature proposed by the Alliance. In order to break this log jam the Alliance proposed the following change to its proposal:

"If the purpose of this "origination" is to complete a call to 9-1-1 (an emergency call), ~~the~~ *each IS95 certified* mobile station must examine the signal strength of all of the control channels assigned to System A and System B and select a compatible channel with the strongest signal. In all other cases,..."

This proposal was rejected out of hand by the Cellular industry who want to nit pick and argue based on hypotheticals based on improbable sets of assumptions. It is very apparent to us that no change will occur unless the Commission mandates change now. In view of the fact that the Alliance proposal has been pending for over two years and has been the subject of extensive public comment, we suggest that this modification, as changed, be adopted as soon as possible. We believe that the cell phone manufacturers can implement such a decision in six months.

Over seventy percent of all cellular users say that they purchased their cell phone for safety and security reasons. We think that the public interest requires the adoption of the Alliance's proposed rule change without delay. As we said above, some thirty five thousand new cell phones are being manufactured each day without this simple feature which would have saved Marcia and others who find themselves in a similar situation. We respectfully ask that the Commission act now to prevent further unconscionable delay.

Sincerely,

Jim Conran

cc: The Honorable Susan Ness
The Honorable Michael Powell
The Honorable Harold Furchgott-Roth
The Honorable Gloria Tristani
William Caton, Secretary

enclosures



FEASIBILITY OF SELECTING THE STRONGEST COMPATIBLE CELLULAR SIGNAL

REPORT PREPARED FOR

AD HOC ALLIANCE FOR PUBLIC ACCESS TO 9-1-1

BY

TROTT COMMUNICATIONS GROUP, INC.

AUGUST 27, 1996

INTRODUCTION:

The Ad Hoc Alliance for Public Access to 9-1-1 (Alliance) has proposed that the Commission adopt a rule change that will require all wireless handsets to automatically select the strongest compatible signal when the user dials 9-1-1. Under the Alliance proposal, the process of selecting the strongest signal will automatically eliminate incompatible signals. This proposal is easily achievable and will impose a minimal burden on manufacturers compared to the benefits provided to the user.

The Commission has also asked for comment concerning ways for mobile users to complete a 9-1-1 call to any available wireless system without regard to system compatibility. In consideration of this issue, it is impractical to require wireless handset manufacturers to support a multitude of frequency bands, modulation types, signaling formats and protocols. It is equally impractical to require wireless service providers to construct systems to support a multitude of frequency bands, modulation types, signaling formats and protocols. It is even more impractical from the Commission's standpoint to re-assign spectrum in each frequency band from one wireless service provider to several competing wireless service providers to support such activities. Due to these impracticalities, this report will address 9-1-1 access only from a cellular perspective.

As a practical matter, most cellular carriers will ensure inter-system compatibility to offer roaming service in order to remain competitive in the marketplace. This will require such service providers to continue to dedicate some spectrum to analog service and handset manufacturers to produce dual-mode analog/digital equipment to accommodate the needs of the roaming subscriber. Thus, a 9-1-1 call can be switched to the strongest, compatible (analog or digital) signal.

GENERAL:

Cellular handsets are designed, manufactured and programmed in compliance with appropriate industry standards to ensure compatibility between the Mobile Station (MS) and Base Station (BS). These standards were prepared by Electronic Industries Association (EIA) and Telecommunications Industry Association (TIA) and published as EIA/TIA Standards. These Standards were reviewed and approved by the F.C.C. and incorporated into their Rules and Regulations by reference. The majority of the cellular handsets in service today are compatible with the original OST-53 analog standard (AMPS). Some are also compatible with one of the digital standards.

Unlike other wireless services, Cellular Radio Telephone Service was initially implemented using analog technology and some systems were subsequently upgraded to one of the standardized digital technologies. In order to retain compatibility with the existing subscriber base and to remain compatible with all other cellular providers in providing roamer service, cellular service providers are retaining analog service; i.e., some channels operate in the analog mode while others operate in a digital format (TDMA, CDMA). In addition, cellular subscriber units are being manufactured as dual-mode; i.e., analog and digital. As a result, most cellular handsets will continue to be compatible with current cellular systems in the analog (AMPS) mode of operation.

COMPATIBILITY ISSUES:

The nationwide deployment of digital cellular is not following a single standard as was the deployment of analog cellular. In some cities, one cellular provider is implementing TDMA in addition to analog while the other is implementing CDMA in addition to analog. In addition, deployment of digital is in isolated areas and not ubiquitous.

The Commission's REPORT AND ORDER AND FURTHER NOTICE OF PROPOSED RULEMAKING CC Docket No. 94-102 / RM-8143, specifically Paragraph 146 and related Footnote 288, ignores one of the central and material parts of the Alliance's request, that wireless handsets automatically select the strongest, **COMPATIBLE** signal when the user dials 9-1-1. Cellular handsets will not recognize or "lock-onto" a stronger signal with an incompatible format. For example, a CDMA handset looks for CDMA pilot channels which are totally different from analog control channels and a TDMA handset looks for TDMA digital control channels which are totally different from analog control channels. In addition, analog-only handsets will not recognize either TDMA or CDMA control or pilot channels. Furthermore, digital (dual-mode) phones will search for analog control channels if no compatible digital signaling is found; therefore, a dual-mode handset could, if so directed, search both format-compatible digital control or pilot channels in addition to analog control channels to determine the strongest compatible system. In light of the ubiquitous nature of the analog networks and better audio quality at this time in the deployment process, it may be preferable to place all 9-1-1 calls in the analog portion of



the wireless networks. This would also speed up the deployment of handset location due to technical limitations of digital location technology, especially CDMA. Digital technologies are intended to benefit the service providers by increasing capacity in a fixed bandwidth, and may in some future generation, provide close to equal voice quality.

REVIEW OF CURRENT PROCESS:

This review is based upon the original OST-53 compatibility specification since all analog operations are backwards compatible to support the original MS equipment. Upon application of power, the MS in a cellular system will perform the *INITIALIZATION* Task (2.6.1) and then enter the *IDLE* Task (2.6.2). The MS will remain in this *IDLE* mode of operation waiting for either a BS or user event. Periodically, the MS will re-scan the cellular environment to ensure itself of current data and accessibility to cellular service.

When the MS user places a call, the MS will exit the *IDLE* task and enter the *SYSTEM ACCESS* Task (2.6.3) with the Origination Flag set. The *SYSTEM ACCESS* Task begins with *SET ACCESS PARAMETERS* Task (2.6.3.1) which defines the basic time allowance for the MS to complete the access attempt. The *SYSTEM ACCESS* Task then continues with the *SCAN ACCESS CHANNELS* Task (2.6.3.2) which instructs the MS to examine the signal strength of ALL control channels beginning with *FIRSTCHA* and ending with *LASTCHA* looking for the strongest two channels in the group. The *INITIALIZATION* Task (2.6.1) set the *FIRSTCHA* and *LASTCHA* parameters to encompass the control channels associated with the preferred serving system, either the A-Side channel set or the B-Side channel set. Therefore, the MS will only look at the access channels for one of the available cellular service providers in the area.

Once the *SCAN ACCESS CHANNELS* Task completes, the MS is tuned to the strongest channel and the *RETRIEVE ACCESS ATTEMPTS PARAMETER* Task (2.6.3.3) is entered. This task informs the MS as to the allowable number of access attempts it will be permitted to try before access failure is declared. The MS then enters the *UPDATE OVERHEAD INFORMATION* Task (2.6.3.4) to insure compliance with the serving system registration and authentication requirements. The MS will then enter the *SEIZE REVERSE CONTROL CHANNEL* Task (2.6.3.5) where it will attempt to pass the Origination request to the serving system.

The processing of this origination call will remain with the selected serving system until call termination or until the serving system hands off the call to a neighboring system if both systems are part of a wide area seamless service agreement. Upon call termination, the MS will enter the *SERVING SYSTEM DETERMINATION* Task (2.6.3.12), which will re-scan the cellular environment before returning to the *IDLE* Task.



PROPOSED CHANGES TO THE PROCESS:

The Ad Hoc Alliance for Public Access to 9-1-1 has proposed a change to the above call process for 9-1-1 calls to be directed to a Public Safety Answering Point (PSAP) from a MS by all cellular service providers. This change is defined as a requirement for the MS to examine ALL control channels for both the A-Side and B-Side service providers to select the strongest compatible channel to process the call without regard to their preferred service provider. This change will ensure the MS user of access to the best communication path to process the emergency call. This process will also enable the locating process to more accurately report the true location of the MS when only the location of the BS cell site is being reported to the PSAP; i.e., the first five years following adoption of the new regulations. It will also reduce the probability of dropped or uncompleted calls and minimize the requirement for call-back by the PSAP.

IMPACT OF THE PROPOSAL ON THE CALL PROCESS:

Incorporating the proposed change into the MS is limited to a relatively minor software modification. The *SET ACCESS PARAMETERS* Task (2.6.3.1) is modified to examine the dialed number to determine if 9-1-1 is being called. If the user has dialed 9-1-1, this task, (2.6.3.1) is expanded to pre-load the FIRSTCHA parameter with the lowest A-Side control channel (313) and the LASTCHA parameter with the highest B-Side control channel (354) in addition to the task's normal process. As a result of this minor change, the following task, *SCAN ACCESS CHANNELS* Task (2.6.3.2) will examine ALL control channels for both the A-Side and B-Side when selecting the strongest compatible signal.

The remainder of the call process will proceed with NO changes required, and as a result, the user will always select the BEST compatible channel from BOTH cellular systems when calling 9-1-1. This change will NOT affect any other calls made by the user. The non-9-1-1 calls will be placed on the preferred system selected by the user.

CONCLUSION:

In summary, the proposal by the Alliance to "Seek the Strongest Compatible Signal" when placing a call to 9-1-1 is achievable with very little impact on the equipment manufacturer, while providing the benefit of the best possible reliability to the user and providing the closest cell site information to the PSAP. This proposed change will also benefit the PSAP by minimizing the probability of dropped or uncompleted calls requiring call-back by either the PSAP or the user.